

Amendment Dated 7/18/2005
Reply to Office Action of 10/733,930

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 (currently amended). A gathering and picking device for standing plants having useful parts comprising:

a picking gap defined by a stripper plate, the picking gap having an inlet for receiving standing plants and having a first side and a second side opposite the first side;

a gathering element is arranged on the first side of the picking gap and is rotated about a predominantly vertical axis, the gathering element is provided with elongated carrier elements that are designed to grasp the standing plants as the gathering and picking device is being operated, the gathering element having a first operating envelope;

a conveying element comprises a series of teeth radially projecting from a generally circular core to a lesser radial extent than the elongated carrier elements and cooperates with the gathering element to introduce the standing plants into the picking gap, the conveying element is arranged on the second side of the picking gap upstream of the inlet of the picking gap, to convey the standing plants over at least part of the length of the picking gap, the conveying element is rotated about a predominantly vertical axis, the conveying element having a second operating envelope partially overlapping with the first operating envelope; and

a picking unit is operated to convey the standing plants downward through the picking gap so the useful parts of the standing plants are separated from the standing plants by the stripper plate.

2 (original). The gathering and picking device as defined by claim 1 wherein the conveying element is provided with protruding teeth-like carrier elements.

3 (original). The gathering and picking device as defined by claim 2 wherein the carrier elements of the conveying element are distributed circumferentially over a disk.

4 (original). The gathering and picking device as defined by claim 3 wherein pocket-like recesses are formed between the carrier elements of the conveying element.

5 (original). The gathering and picking device as defined by claim 1 wherein the picking unit comprises at least one picking roll having a point, the point is arranged beneath the inlet of the picking gap.

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6 (canceled). The gathering and picking device as defined by claim 1 wherein gathering element has an operating envelope and the conveying element has an operating envelope, the operating envelopes of the gathering element and of the conveying element overlap.

7 (original). The gathering and picking device as defined by claim 1 wherein the conveying is rotated faster than the gathering element is rotated.

8 (original). The gathering and picking device as defined by claim 1 wherein the conveying is rotated at approximately the same speed the gathering element is rotated.

9 (original). The gathering and picking device as defined by claim 1 wherein the conveying element is arranged above the picking gap.

10 (original). The gathering and picking device as defined by claim 1 wherein the conveying element is arranged below the picking gap.

11 (original). The gathering and picking device as defined by claim 1 wherein the conveying element is arranged above and below the picking gap.

12 (original). The gathering and picking device as defined by claim 1 wherein the conveying element is arranged beneath the gathering element.

13 (original). The gathering and picking device as defined by claim 1 wherein the conveying element is arranged above the gathering element.

14 (original). The gathering and picking device as defined by claim 1 wherein the conveying element is arranged above and beneath the gathering element.

15 (original). The gathering and picking device as defined by claim 1 wherein the conveying element has an operating envelope, the operating envelope of the conveying element terminates approximately at the inlet of the picking gap.

16 (new). The gathering and picking device as defined by claim 1 wherein the teeth are generally triangular.

17 (new). The gathering and picking device a defined by claim 1 wherein the teeth are generally triangular with rounded peaks.